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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,208	04/23/2001	Christiaan Jacob Martens	NL000217	7398

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EXAMINER

GLASS, CHRISTOPHER W

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 05/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,208

Applicant(s)

MARTENS ET AL.

Examiner

Christopher W. Glass

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Finality of rejection is withdrawn, in light of newly discovered prior art references directly applicable to the subject matter of the claims. Applicant's arguments with respect to claims 1,3-6,9, and 10 have been considered but are moot in view of the new ground(s) of rejection. The examiner maintains that all pending claims are unpatentable, according to the following rejections.

Claim Rejections - 35 USC § 112

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language fails to provide clearly defined method steps.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,3-6, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,087,688 to Keller, in view of U.S. Patent No. 3,809,879 to Gonzalez and in view of teaching found in *Kaleidoscope Mirror Arrangements* by Charles Karadimos.

Regarding claim 1: Keller shows in Figure 3 a movement detector which is capable of detecting movement of a body in a space and includes a light-sensitive sensor 5 and optical means 2,3,11 which are capable of projecting a multiple image of the space onto the sensor 5, characterized in that the optical means 2,3,11 include a mirror assembly 2 having a kaleidoscopic

Art Unit: 2878

effect. The mirror assembly **2** constitutes an elongate body whose reflecting surface faces inwards. Keller does not expressly disclose the cross-section of the mirror assembly as varying from a smallest to a largest cross-section along its longitudinal axis. However, this setup is well known in the art and provides several known optical advantages. Gonzalez shows in Figure 1 a device for generating and viewing kaleidoscopic images, comprising a mirror assembly of triangular cross-section, composed of internally reflecting mirror surfaces **20,21,22**. The mirror assembly is provided within a housing (cabinet) **11**. The mirrors are "equal sized" and "arranged in a frustro-pyramidal tunnel-like form. Each mirror in plan is in the shape of a truncated pyramid and all three mirrors **20,21,22** are joined along their marginal edges to form an equilateral tunnel with all mirrors facing inwardly" (Column 3, lines 20-26). Karadimos teaches that in such tapered configurations of inwardly reflecting mirrors, when viewing through the small end of the opening of the mirror assembly, "the actual and virtual images are enlarged to more visibly examine the objects in the object chamber. This also allows more light to enter the system, increasing the overall brightness" (see www.brewstersociety.com/mirror_config.html). It would have been obvious to one having ordinary skill in the art at the time the invention was made, therefore, to configure the kaleidoscopic mirror assembly **2** of Keller to have this tapered arrangement, such that the light-entering end of the assembly (proximate lens **3**) was larger and the sensor end (proximate sensor **5**) was smaller, in order to provide the above-mentioned advantages to the system.

Regarding claim 3: The optical means **2,3,11** of the movement detector of Keller comprises a "collecting lens **3** serving as a focusing optical system" (Column 3, lines 22-23).

Regarding claim 4: As shown in Figure 3, the sensor **5** is situated near a first end of the mirror assembly **2**, whereas the lens **3** is situated near the second end of the mirror assembly.

Regarding claim 5: The cross-section of the mirror assembly **2** forms a rectangular polygon (see Figure 3 and Column 3, lines 46-56).

Regarding claim 6: The disclosure of Keller cites that the "foregoing cross-section (of mirror assembly **2**) can (instead) be selected to be also polygonal in shape, so that a multi-sided prism is formed" and although a cross-sectional formation of essentially a triangle is not expressly disclosed, this arrangement is well known in the art, as shown by Figure 1 of Gonzalez, which shows a tapered triangular mirror assembly comprising mirrors **20,21,22**. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the cross-section of the Keller mirror assembly **2** be triangular, since this is well known in the art and offers several advantages, as mentioned above. Further, such three-mirror configurations "produc(e) a continuation of reflections throughout the entire field of view" (Karadimos).

Regarding claim 9: In Keller, the sensor **5** includes an infrared sensor (see Column 3, lines 38-45).

5. Claim 10 is unpatentable over Keller, in view of U.S. Patent No. 4,155,066 to Galvin et al. (hereafter Galvin). Keller discloses a movement detector having a light-sensitive sensor **5** and optical means for projecting a multiple image of the space onto the sensor, including a mirror assembly **2** having a kaleidoscopic effect (e.g. see Figure 3). It does not expressly teach installing the device such that the sensor was arranged above the ceiling of the space, and the arrangement being such that the mirror assembly extends essentially through the ceiling.

However, this is well known in the art. Galvin teaches that "transmitting and receiving transducers" in motion detection/alarm systems "are often mounted in the ceiling of a room or other enclosure", and Figure 1 shows first and second transducers **10** and **11**, "mounted in a ceiling **12** of an enclosure being protected. As shown, the transducer **20** (ultrasonic, acoustic, or electromagnetic) is arranged within the ceiling, and signals leaving/entering aperture **22** at the ceiling surface level impinge on element **20** via the submerged cavity **18**. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the device of Keller in a similar configuration, such that the light sensor **5** was arranged above a ceiling of a space, and such that the mirror assembly **2** extends essentially through the ceiling, in order to provide a high level of visibility for detecting movement, as of burglars, in a space. It further would have been obvious to mount some or the majority of this device within the ceiling, concealing all but the necessary optical receiving elements from obvious sight, for cosmetic reasons or in order to provide an inconspicuous means of surveillance.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher W. Glass whose telephone number is 703-305-1980. The examiner can normally be reached 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached at 703-308-4852. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


Application/Control Number: 09/840,208

Page 6

Art Unit: 2878

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May 19, 2003


STEPHONE ALLEN
PRIMARY EXAMINER